

# College of Public Health News

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Georgia Southern University

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## Rural Women's Exercise Self-efficacy

December 23, 2013

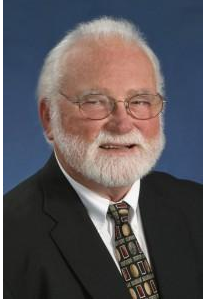
A small rectangular box containing the name "Bland" in blue text, with a small green and blue icon to its left.

A collaborative study including Dr. Helen Bland, professor of community health and behavior education at the Jiann-Ping Hsu College of Public Health examines *American rural women's exercise self-efficacy and awareness of exercise benefits and safety during pregnancy*. Though the positive link between physical activity and maternal health is well documented, physical activity declines during pregnancy and, internationally, rural mothers are less likely than urban mothers to engage in physical activity. Some evidence suggests that self-efficacy is related to sustained engagement in physical activity.

The purpose of this study was to examine self-efficacy, perceived benefits, and knowledge of safe exercise among 88 rural pregnant women in a southeastern region of the United States. Exercise self-efficacy was significantly related to maternal age and gestation. Women over age 26 years, and those in the second and third trimesters, scored significantly higher than younger women or those in the first trimester. Fifty-two percent ( $n = 46$ ) of participants perceived that activity would decrease energy levels, 37.5% ( $n = 33$ ) did not know that exercise can decrease the risk of gestational diabetes, and 47.6% ( $n = 41$ ) were unaware that a mother who is overweight is more likely to have an overweight child. Results confirm a need for education to improve women's knowledge about health benefits and safety information related to physical activity during pregnancy.

# Ubiquitous Effects of Quantum Entanglement

December 23, 2013



A collaborative study including Dr. Karl E. Peace and Dr. Wen-Ran Zhang entitled *Revealing the Ubiquitous Effects of Quantum Entanglement—Toward a Notion of God Logic*. Following Spinoza-Einstein's interpretation of God or nature, the notion "God Logic" is proposed. This notion is to serve as an elicitation for a consistent set of necessary criteria for: 1) developing the logical foundation of quantum gravity as envisaged by Einstein, 2) revealing the ubiquitous effects of quantum entanglement as suggested by Roger Penrose, and 3) programming the universe as proposed by Seth Lloyd. An evolving set of eleven criteria is proposed for the notion. The possibility of inventing such a logical system is analyzed. A supersymmetrical candidate logic of negative-positive energy dynamic equilibrium is introduced and assessed against the set of criteria. It is shown that the first 10 criteria are met or partially met by the

candidate. But the question whether the 11th criterion has been or can be met is left open for discussion and further research effort. The assessment leads to a few predictions. Notably, it is predicted that, should Boson-Fermion symmetry or broken symmetry be observed, it would be caused by bipolar symmetry or broken symmetry of negative-positive energies.